SPECIFICATION AMENDMENTS

Please make the following amendments to the specification (material to be inserted in replacement paragraphs or sections is in underline, and material to be deleted is in ~~strikeout~~).

Please amend the paragraph beginning on page 6, line 21, as indicated below:

> Once activated in response to a dangerous condition, reaction subsystem 24 is configured to engage operative structure 12 quickly to prevent serious injury to the user. It will be appreciated that the particular action to be taken by reaction subsystem 24 will vary depending on the type of machine 10 and/or the dangerous condition that is detected. For example, reaction subsystem 24 may be configured to do one or more of the following: stop the movement of cutting tool 14, disconnect motor assembly 16 from power source 20, place a barrier between the cutting tool and the user, or retract the cutting tool from its operating position, etc. The reaction subsystem may be configured to take a combination of steps to protect the user from serious injury. Placement of a barrier between the cutting tool and teeth is described in more detail in U.S. Provisional Patent Application Serial No. 60/225,206, filed August 14, 2000, entitled "Cutting Tool Safety System," and U.S. Patent Application Serial No. ~~_____~~09/929,226, filed August 13, 2001, entitled "Cutting Tool Safety System," the disclosures of which are herein incorporated by

reference. Retraction of the cutting tool from its operating position is described in more detail in U.S. Provisional Patent Application Serial No. 60/225,089, filed August 14, 2000, entitled "Retraction System For Use In Power Equipment," and U.S. Patent Application Serial No. ~~_____~~09/929,242, filed August 13, 2001, entitled "Retraction System For Use In Power Equipment," the disclosures of which are herein incorporated by reference.

Please amend the paragraph beginning on page 8, line 6, as indicated below:

It will be appreciated by those of skill in the art that the exemplary embodiment depicted in Fig. 1 and described above may be implemented in a variety of ways depending on the type and configuration of operative structure 12. Turning attention to Fig. 2, one example of the many possible implementations of safety system 18 is shown. System 18 is configured to engage an operative structure having a cutting tool in the form of a circular blade 40 mounted on a rotating shaft or arbor 42. Blade 40 includes a plurality of cutting teeth (not shown) disposed around the outer edge of the blade. As described in more detail below, braking mechanism 28 is adapted to engage the teeth of blade 40 and stop the rotation of the blade. U.S. Provisional Patent Application Serial No. 60/225,210, filed August 14, 2000, entitled, "Translation Stop For Use In Power Equipment," and U.S. Patent Application Serial No. ~~_____~~09/929,425, filed August 13, 2001, entitled "Translation

Stop For Use In Power Equipment," the disclosures of which are herein incorporated by reference, ~~describes~~describe other systems for stopping the movement of the cutting tool. U.S. Provisional Patent Application Serial No. 60/225,058, filed August 14, 2000, entitled "Table Saw With Improved Safety System," U.S. Patent Application Serial No. ——09.929,235, filed August 13, 2001, entitled "Table Saw With Improved Safety System," U.S. Provisional Patent Application Serial No. 60/225,057, filed August 14, 2000, entitled "Miter Saw With Improved Safety System," and U.S. Patent Application Serial No. ——09/929,238, filed August 13, 2001, entitled "Miter Saw With Improved Safety System," the disclosures of which are herein incorporated by reference, describe safety system 18 in the context of particular types of machines 10.

Please amend the paragraph beginning on page 9, line 5, as indicated below:

In the exemplary implementation, detection subsystem 22 is adapted to detect the dangerous condition of the user coming into contact with blade 40. The detection subsystem includes a sensor assembly, such as contact detection plates 44 and 46, capacitively coupled to blade 40 to detect any contact between the user's body and the blade. Typically, the blade, or some larger portion of cutting tool 14 is electrically isolated from the remainder of machine 10. Alternatively, detection subsystem 22 may include a different

sensor assembly configured to detect contact in other ways, such as optically, resistively, etc. In any event, the detection subsystem is adapted to transmit a signal to control subsystem 26 when contact between the user and the blade is detected. Various exemplary embodiments and implementations of detection subsystem 22 are described in more detail in U.S. Provisional Patent Application Serial No. 60/225,200, filed August 14, 2000, entitled "Contact Detection System For Power Equipment," U.S. Patent Application Serial No. ——09/929,426, filed August 13, 2001, entitled "Detection System For Power Equipment," U.S. Provisional Patent Application Serial No. 60/225,211, filed August 14, 2000, entitled "Apparatus And Method For Detecting Dangerous Conditions In Power Equipment," and U.S. Patent Application Serial No. ——09/929,221, filed August 13, 2001, entitled "Apparatus And Method For Detection Dangerous Conditions In Power Equipment," the disclosures of which are herein incorporated by reference.

Please amend the paragraph beginning on page 10, line 1, as indicated below:

Control subsystem 26 includes one or more instruments 48 that are operable by a user to control the motion of blade 40. Instruments 48 may include start/stop switches, speed controls, direction controls, etc. Control subsystem 26 also includes a logic

controller 50 connected to receive the user's inputs via instruments 48. Logic controller 50 is also connected to receive a contact detection signal from detection subsystem 22. Further, the logic controller may be configured to receive inputs from other sources (not shown) such as blade motion sensors, workpiece sensors, etc. In any event, the logic controller is configured to control operative structure 12 in response to the user's inputs through instruments 48. However, upon receipt of a contact detection signal from detection subsystem 22, the logic controller overrides the control inputs from the user and activates reaction subsystem 24 to stop the motion of the blade. Various exemplary embodiments and implementations of control subsystem 26 are described in more detail in U.S. Provisional Patent Application Serial No. 60/225,059, filed August 14, 2000, entitled "Logic Control For Fast-Acting Safety System," U.S. Patent Application Serial No. 09/929,237, filed August 13, 2001, entitled "Logic Control For Fast-Acting Safety System," U.S. Provisional Patent Application Serial No. 60/225,094, filed August 14, 2000, entitled "Motion Detecting System For Use In Safety System For Power Equipment," and U.S. Patent Application Serial No. 09/929,234, filed August 13, 2001, entitled "Motion Detecting System For Use In A Safety System For Power Equipment," the disclosures of which are herein incorporated by reference.

Please amend the paragraph beginning on page 12, line 1, as indicated below:

Pawl 60 is released from its unactuated, or cocked, position to engage blade 40 by a release mechanism in the form of a firing subsystem 76. The firing subsystem is coupled to contact mount 72, and is configured to melt fusible member 70 by passing a surge of electrical current through the fusible member. Firing subsystem 76 is coupled to logic controller 50 and activated by a signal from the logic controller. When the logic controller receives a contact detection signal from detection subsystem 22, the logic controller sends an activation signal to firing subsystem 76, which melts fusible member 70, thereby releasing the pawl to stop the blade. Various exemplary embodiments and implementations of reaction subsystem 24 are described in more detail in U.S. Provisional Patent Application Serial No. 60/225,056, filed August 14, 2000, entitled "Firing Subsystem For Use In A Fast Acting Safety System," U.S. Patent Application Serial No. ——09/929,240, filed August 13, 2001, entitled "Firing Subsystem For Use In A Fast Acting Safety System," U.S. Provisional Patent Application Serial No. 60/225,169, filed August 14, 2000, entitled "Brake Mechanism For Power Equipment," and U.S. Patent Application Serial No. ——09/929,241, filed August 13, 2001, entitled "Brake Mechanism For Power Equipment," the disclosures of which are herein incorporated by reference.

Please amend the paragraph beginning on page 12, line 17, as indicated below:

It will be appreciated that activation of the brake mechanism will require the replacement of one or more portions of safety system 18. For example, pawl 60 and fusible member 70 typically must be replaced before the safety system is ready to be used again. Thus, it may be desirable to construct one or more portions of safety system 18 in a cartridge that can be easily replaced. For example, in the exemplary implementation depicted in Fig. 2, safety system 18 includes a replaceable cartridge 80 having a housing 82. Pawl 60, spring 66, fusible member 70 and contact mount 72 are all mounted within housing 82. Alternatively, other portions of safety system 18 may be mounted within the housing. In any event, after the reaction system has been activated, the safety system can be reset, such as by replacing cartridge 80. The portions of safety system 18 not mounted within the cartridge may be replaced separately or reused as appropriate. Various exemplary embodiments and implementations of a safety system using a replaceable cartridge are described in more detail in U.S. Provisional Patent Application Serial No. 60/225,201, filed August 14, 2000, entitled "Replaceable Brake Mechanism For Power Equipment," U.S. Patent Application Serial No. ~~_____~~09/929,236, filed August 13, 2001, entitled "Replaceable Brake Mechanism For

Power Equipment," U.S. Provisional Patent Application Serial No. 60/225,212, filed August 14, 2000, entitled "Brake Positioning System," and U.S. Patent Application Serial No. 09/929,244, filed August 13, 2001, entitled Brake Positioning System," the disclosures of which are herein incorporated by reference. However, it should be noted that a cartridge is not required.

Please amend the paragraph beginning on page 13, line 20, as indicated below:

As discussed, safety system 18 includes a brake mechanism 28 that is adapted to stop the cutting tool, thereby preventing or reducing injury to the user. As also discussed previously, brake mechanism may include at least one pawl 60 adapted to engage the cutting tool to stop its rotation. Illustrative examples of suitable pawls are disclosed in copending U.S. Provisional Patent Application Serial No. 60/225,169, filed August 14, 2000, entitled "Brake Mechanism For Power Equipment," and U.S. Patent Application Serial No. 09/929,241, filed August 13, 2001, entitled "Brake Mechanism For Power Equipment," which are incorporated herein by reference. For purposes of the following discussion, cutting tool 14 will be described in the context of a blade 40, such as on a table saw, miter saw, circular saw or the like. It should be understood that blade 40 may include single blades, such as plywood or carbide-tipped blades, or an assembly of several blades, such as a dado blade.

Please amend the paragraph beginning on page 14, line 10, as indicated below:

As further discussed, pawl 60 is urged from its cocked, or restrained, position toward blade 40 or other cutting tool by biasing mechanism 30. In Fig. 2, biasing mechanism 30 includes a spring 66. From its compressed position shown in Fig. 2, spring 66 biases the pawl to move into engagement with blade 40. In Fig. 2, a restraining mechanism 32 is shown restraining pawl 60 from moving toward the blade under the biasing force exerted by spring 66. However, upon release of restraining mechanism 32, the pawl is no longer retained in its cocked position. As such, the pawl moves quickly into engagement with the blade under the force exerted by spring 66, such as shown in Fig. 3. An example of how restraining mechanism 32 may release the pawl is when a sufficiently high current is passed through fusible member 70. Other suitable release and restraining mechanisms are disclosed in copending U.S. Provisional Patent Application Serial No. 60/225,056, filed August 14, 2000, entitled "Firing Subsystem For Use In A Fast-Acting Safety System," and U.S. Patent Application Serial No. ——09/929,240, filed August 13, 2001, entitled "Firing Subsystem For Use In A Fast-Acting Safety System," which are incorporated herein by reference.

Please amend the paragraph beginning on page 15, line 20, as indicated below:

The spring selected should have sufficient force to move the brake pawl into contact with the blade or other cutting tool or portion of operative structure 12 within the desired time frame. It will be understood by those of skill in the art that the appropriate spring force may be calculated from the pawl-to-blade separation, the weight of the pawl, and the desired length of time necessary to move the pawl into contact with the blade (transit time). As discussed in U.S. Provisional Patent Application Serial No. 60/225,200, filed August 14, 2000, entitled "Contact Detection System For Power Equipment," and U.S. Patent Application Serial No. ——09/929,426, filed August 13, 2001, entitled "Detection System For Power Equipment," which are incorporated herein by reference, it may be desirable that the brake pawl move into contact with the blade or other cutting tool within approximately one to approximately three milliseconds (ms) after being released from the restraining mechanism. Thus, for a pawl-to-blade separation of 1/32-inch, the selected spring should have sufficient force to accelerate the pawl at over 500 ft/s^2 to achieve a transit time of approximately 3-ms, or sufficient force to accelerate the pawl at over 5,000 ft/s^2 to achieve a transit time of approximately 1-ms. Similarly, for a pawl-to-blade separation of 1/8-inch, the spring should have sufficient force to generate a pawl acceleration of over 2,000 ft/s^2 for a transit time of approximately 3-ms, or a pawl

acceleration of over 20,000 ft/s^2 for a transit time of approximately 1-ms. Likewise, for a pawl-to-blade separation of 1/4-inch, the spring should have sufficient force to generate a pawl acceleration of over 4,500 ft/s^2 for a transit time of approximately 3-ms, or a pawl acceleration of over 40,000 ft/s^2 for a transit time of approximately 1-ms.

Please amend the paragraph beginning on page 27, line 14, as indicated below:

It will be appreciated that the spring-biased brake mechanism described above may be implemented with many variations within the scope of the invention. For example, the spring-biased mechanisms disclosed herein may be used to drive the retraction of blade 40, such as on a table saw or a miter saw, such as described in copending U.S. Provisional Patent Application Serial No. 60/225,089, filed August 14, 2000, entitled "Retraction System For Use In Power Equipment," U.S. Patent Application Serial No. —09/929.242, filed August 13, 2001, entitled "Retraction System For Use In Power Equipment," U.S. Provisional Patent Application Serial No. 60/225,057, filed August 14, 2000, entitled "Miter Saw With Improved Safety System," and U.S. Patent Application Serial No. —09/929,238, filed August 13, 2001, entitled "Miter Saw With Improved Safety System," which are incorporated herein by reference.